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In re Application of: )  
Dagnar Antoni-Zimmermann ) Examiner : Jagoe, D  
Serial No.: 09/509,932 ) Art Unit: 1614  
Filed : September 13, 2000 )  
)

For : SYNERGISTIC BIOCIDE COMPOSITION

New York, NY 10036  
February 21, 2003Commissioner for Patents  
Washington, D.C. 20231SUBSTITUTE APPEAL BRIEF

Sir:

This is an appeal from the final rejection of all claims by the Primary Examiner.

(1) Real party in interest. The real party in interest is Thor Chemie GmbH.

(2) Related appeals and interferences. There are no related appeals or interferences.

(3) Status of the claims. Claims 1-9 have been finally rejected. There are no allowed claims.

(4) Status of amendments. There are no unentered amendments.

(5) Summary of invention. The invention is directed to a biocide composition which is useful as an additive to substances susceptible to infestation by harmful organisms. The biocide composition consisting essentially of a biocidal amount of 2-methylisothiazolin-3-one, a biocidal amount of 3-iodo-2-propynyl-

N-butylcarbamate and a polar or non-polar liquid medium.

(6) Issues.

Are the claims made unpatentable under 35 U.S.C. §103(a) by the prior art Valcke et al. (Valcke) patent?

Does the term "consisting essentially of" exclude the compositions of the Valcke prior art patent from the claims of the present application?

(7) Grouping of claims. Claims 1 and 5-8 are to be considered together; claims 2-4 and 9 are to be considered separately.

(8) Argument.

Claims 1-9 stand finally rejected over Valcke et al. (U.S. 5,714,507) under 35 U.S.C. §103(a). The Examiner applied the Valcke et al. reference as making obvious the claimed composition because Valcke et al. teach biocidal compositions "comprising the active ingredients (I) and (II) and further comprising other microbiocides. The "other microbiocides" include the applicants claimed combination as well as approximately some 200 biocides. There is no teaching in Valcke et al. that directs the skilled artisan to the combination of 2-methylisothiazolin-3-one, 3-iodo-2-propynyl-N-butylcarbamate and a polar or non-polar liquid medium as pointed out in claim 1 of the present application.

Claims 1 and 5-8 are patentable for the following reasons:

The claim language that the applicants have adopted recites that the claimed composition "consists essentially of" the recited components. This terminology has been recognized by the courts and the Patent and Trademark Office as excluding additives that would have a material effect on the basic and novel characteristics of the claimed invention. In re Janakirma Rao, 137 USPQ 256 (CCPA 1963); Water Technologies Corp. v. Calco, Ltd., 7 USPQ2d 1097 (Fed.Cir. 1988).

The Valcke et al. patent is concerned with a composition of (I) and (II). Compound (I) is identified as metconazole and

compound (II) is identified as a triazole. Nothing in the applicants' specification points to metconazole and a triazole as being the a part of the claimed invention. The Valcke et al. compositions must contain these materials as active biocides or one does not utilize the explicit teachings of Valcke et al.

In making the rejection under 35 U.S.C. §103 in Paper No. 8, the Examiner commented that the claims were drawn to a biocide composition containing 2-methylisothiazolin-3-one and 3-iodo-2-propynyl-N-butylcarbamate in combination and excluding 5-chloro-2-methylisothiazolin-3-one. The Valcke et al. reference was applied as teaching biocide compositions "comprising the active ingredients" and "further comprising other microbiocides such as 3-iodo-2-propynyl-N-butylcarbamate and isothiazolinones such as N-methylisothiazolin-3-one.

In response to this rejection, the claims were amended to point out that the claimed composition "consists essentially of" the recited ingredients. The accompanying REMARKS, in the Amendment dated February 1, 2002, pointed out that the language "consisting essentially of" was adopted to exclude the essential components of the cited reference which are metconazole and a triazole.

In the Final Rejection, the Examiner stated that the term "consisting essentially of" fails to exclude the presence of metconazole and a triazole from the applicant's amended claims because since metconazole is required by the Valcke et al. patent, it would not materially affect the instantly claimed composition which is fungicidal. In support of the rejection, the Examiner cited MPEP §2111.03.

MPEP §2111.03 explicitly points out that the term "consists essentially of" limits the claim to the specified ingredients and those that do not materially affect the basic and novel characteristics of a composition. The case of In re Herz and Willis, 190 USPQ 461 (Fed. Cir. 1986) was cited in MPEP §2111.03 as an illustration of how the term "consisting essentially of" is to be construed. At page 463 of the Herz decision, the court stated that:

"Therefore, in construing the phrase 'consisting essentially of', in appellants claims it is necessary and proper to determine whether their specification reasonably supports a construction that would includes additives..." 190 USPQ at p.463 (emphasis added)

Based on the explicit language of the cited case, the Examiner must look to the applicants' specification and not to the specification of the cited reference in order to construe the meaning of the term "consisting essentially of". When the applicant's specification is reviewed, there is no mention of the addition of metconazole or a triazole, even though other additives are mentioned. For this reason, the Examiner's construction of the applicants' claims is erroneous.

In addition, any burden that the present applicants may have in showing that the introduction of additional components would materially change the characteristics of the applicants' composition invention is met by the fact that Valcke et al. claims the addition of metconazole and a triazole has a fungicidal effect. Based on the disclosed activity of the metconazole/triazole combination by Valcke et al., one would assume that if one did not use these materials the effects that were claimed for the combination would not be achieved. This disclosure by Valcke et al. provides evidence of the material effect of the presence of metconazole and a triazole.

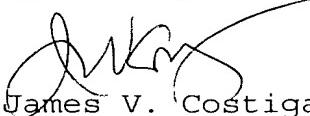
Claims 2-4 and 9 point out specific ratios of the recited materials. These claims are patentable for the reasons set forth above for the patentability of claims 1 and 5-8 and for the further reason that the numerical ratios are not found in the Valcke et al. reference which only specifies ratios for the metconazole and triazole components. A finding of obviousness for the use of specific ratios of biocides is not proper when the cited reference is silent as to the amounts of these materials that are to be used.

Table I-XII of the present application provide performance data for the claimed combination. This data was obtained using ratios of materials within the scope of claims 2-4

and 9, without the use of the metconazole or triazole components of the prior art compositions. The synergy index as reported in Tables II, IV, VI, VIII, X and XII is persuasive of the unexpected advantages that are obtained by the claimed combination of biocides. This is further indicia of the non-obviousness of the claimed invention.

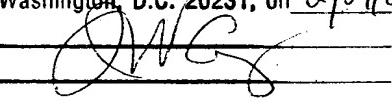
It is requested that the rejection be reversed and patent protection be allowed to an advance in the art.

Respectfully submitted,

  
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Appealed claims:

1. Biocide composition as an additive to substances susceptible to infestation by harmful organisms, said biocide composition consisting essentially of a biocidal amount of 2-methylisothiazolin-3-one, a biocidal amount of 3-iodo-2-propynyl-N-butylcarbamate and a polar or non-polar liquid medium.
2. Biocide composition according to claim 1, characterized in that it contains 2-methylisothiazolin-3-one and 3-iodo-2-propynyl-N-butylcarbamate in a weight ratio of (100-1) : (1-50).
3. Biocide composition according to claim 2, characterized in that it contains 2-methylisothiazolin-3-one and 3-iodo-2-propynyl-N-butylcarbamate in a weight ratio of (15-1) : (1-8).
4. Biocide composition according to claims 1 through 3, characterized in that it contains 2-methylisothiazolin-3-one and 3-iodo-2-propynyl-N-butylcarbamate in a total concentration of 1 to 20% by weight based on the total biocide composition.
5. Biocide composition according to any one of claims 1 through 3, characterized in that it contains a polar and/or a nonpolar liquid medium.
6. Biocide composition according to any one of claims 1 through 5, characterized in that it contains as polar liquid medium water, an aliphatic alcohol having 1 to 4 carbon atoms, a glycol, a glycol ether, a glycol ester, a polyethylene glycol, a polypropylene glycol, N,N-dimethylformamide, 2,2,4-trimethylpentanediolisobutyrate, or a mixture of such substances.
7. Biocide composition according to any one of claims 1 through 6, characterized in that the polar liquid medium is water and the composition has a pH value of 6 to 8.

8. A method of combatting harmful microorganisms which comprises applying an effective amount of a biocide composition according to anyone of claims 1 through 3.

9. A biocide composition for use as an additive to substances susceptible to infestation by harmful organisms, said biocide composition consisting essentially of 2-methylisothiazolin-3-one and 3-iodo-2-propynyl-N-butylcarbamate in a weight ratio of (100-1) : (1-50) and a polar or non-polar liquid medium.